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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,146	06/24/2002	Klaus Winter	10191/2063	9486

7590 02/15/2008

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EXAMINER	
PIERRE LOUIS, ANDRE	
ART UNIT	**PAPER NUMBER**
2123	
MAIL DATE	**DELIVERY MODE**
02/15/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/980,146	WINTER ET AL.	
	Examiner	Art Unit	
	Andre Pierre-Louis	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-11* is/are pending in the application.

4a) Of the above claim(s) *9 and 10* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-8 and 11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 January 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 1/15/2008 has been received and fully considered, all pending rejection and objection are withdrawn.

2. Claims 1-5 are still cancelled and claims 9 and 10 remain withdrawn from consideration.

3. Claims 6-8, and 11 are presented for examination.

Response to Arguments

4. Applicant's arguments filed 01/15/2008 have been fully considered but they are moot in view of the new grounds of rejections.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.0 Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nier et al. (U.S. Patent No. 4,063,237), in view of Winner et al. (GB 2317256 A).

5.1 With regards to claims 6-8, Nier et al. substantially teaches a method for a motor vehicle having adaptive distance and speed control for lane allocation of consecutive vehicle on a multi-lane roads (*fig.1-2, title, col.2 lines 46-68*), and particularly teaches the step of: carrying out the lane allocation in a model-based manner via a frequency distribution of lateral displacement of detected radar objects *(see 1-2, col.2 lines 46-66, col.5 line 23-col.6 line 41)*; means for correlating a determined frequency distribution with one of (a) stored models for frequency distributions of lateral displacements, relating to lane allocation for multi-lane roads

having a define width and (b) characteristic lateral displacement histograms for different lanes used by succeeding vehicle *(fig.3-4, col.5 line 31-col.6 line 50; also see table 1)*; means for outputting a model part having a highest correlation to the determined frequency distribution as a lane hypothesis, the lane hypothesis including a number of lanes and a lane used by one's own vehicle *(fig.3 (38,39), fig.6-7, col.5 line 34 and col.6 lines 36-50).* Although, Nier et al. does not specifically state that the frequency distribution is of lateral displacement, one of ordinary skilled in the art would clearly appreciate the approach taken by Nier et al., as Nier et al. teaches multilane roadways with vehicle equipped with distance sensor transmitter, receiver for spacing and/or tracking lane information of moving vehicles (see fig.1-2 and elements *11, 12, 13, col.2 lines 46-56 and col.6 lines 36-50*). Nevertheless, Winner et al. a method for the allocation of vehicle having ACC to traffic lane via frequencies distribution of lateral displacement *(see fig.1, and pages 2-3)*, and further including outputting and storing of a model of the frequency distribution of lateral displacement *(see pg.fig.3, pages 6-7, and pages 8-9).* Winner et al. and Winner et al. are analogous art because they are from the same field of endeavor and that the method teaches by Winner et al. is similar to that of Nier et al. Therefore it would have been obvious to one ordinary skilled in the art at the time of the applicant's invention to combine the method of Winner with distance measuring system of Nier et al. because Winner et al. teaches the advantage of determining relative speed between the vehicle in order to detect the oncoming traffic from all signals delivered by the distance sensor *(see page 3).*

5.2 As per claim 11, the combined teachings of Nier et al. and Winner et al. substantially teach a method for determining lane allocation of consecutive vehicles on multi-lane road, the method comprising: determining lateral displacements of radar sensor detected

objects relative to a longitudinal vehicle axis, wherein the lane allocation is implemented in a model-based manner via a frequency distribution of the lateral displacements of the radar sensor detected *(see Nier et al. fig.3-4, col.2 lines 46-65, col.5 line 23-col.6 line 41; also see Winner et al. fig.1, and 3, pages 2-3, 6-9)* ; determining a histogram of a frequency distribution of the lateral displacements *(see Winner et al. fig.1 and 3, page 2-3, 6,8)*; correlating the histogram to store a lane models *(see Winner et al. 6-9, also see Nier et al. col.5 line 23-col.6 line 41);* detecting an instantaneously driving lane of the multi-lane roadway based on a lane model having a greatest correlation to a lateral-offset histogram *(see Winner et al. fig. 1 and 3, page 6-9, also see Nier et al. fig.1-2, 6-7).*

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6.1 Wagner (U.S. Patent No. 5,949,365) teaches a multiple beam radar system.

6.2 Matsumoto et al. (U.S. Patent No. 6,138,064) teaches a method for automatically controlling traveling vehicles

7. Claims 1-5 are canceled, claims 9-10 are withdrawn.

8. Claims 6-8, and 11 are rejected and **THIS ACTION IS Non-FINAL.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Pierre-Louis whose telephone number is 571-272-8636. The examiner can normally be reached on Mon-Fri, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul L. Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 7, 2008

APL

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2/14/08